

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (canceled)

2. (previously presented) A tire according to Claim 30, characterized in that the composition and properties of the first layer (A, A₁) are identical to the composition and properties of the coating mix (B, B₁) of the reinforcement elements of the ply.

3. (canceled)

4. (canceled)

5. (currently amended) A tire according to Claim ~~[[4]]~~ 30, characterized in that the coating mix B has the same composition and properties as those of the mix of the first calendering layer A, the secant modulus of elasticity in tension of said mix in the vulcanized state, measured at a relative elongation of 0.1, being between 6 and 12 MPa, whereas the Mooney viscosity of said mix in the non-vulcanized state is between 60 MU and 90 MU.

6. (currently amended) A tire according to Claim ~~[[4]]~~ 30, having a tread and in which the carcass reinforcement ply forms an upturn about a bead wire, characterized in that the second layer C is formed:

* of a first band C₁ of rubber mix, extending from a point T of the bead wire radially closest to the axis of rotation to a point of intersection S between the average axis of the meridian profile of the carcass ply and a line

perpendicular to said profile lowered by the end of the upturn of the ply, the zone TS being referred to as the "bead zone",

* of a second band C_2 of rubber mix, extending from said point I to a point R representing the end of the upturn of the carcass ply, the zone TR being referred to as the "upturn zone",

* of a third band C_3 of rubber mix, between the point S and a point of intersection V of the average axis of the meridian profile of the carcass ply with a straight line parallel to the equatorial plane and distant from said plane by an amount between 30% and 45% of the axial width of the tread, the zone SV being referred to as the "sidewall and shoulder zone",

* of a fourth band C_4 of rubber mix, between the point V and the equatorial plane XX', forming what is called the "crown zone", the bands C_1 , C_2 and C_4 being formed of the same mix, the elasticity modulus of which is between 6 MPa and 12 MPa and the Mooney viscosity of which is between 60 MU and 90 MU, whereas the band C_3 is formed of a mix, the elasticity modulus of which is between 3.5 MPa and 5 MPa and the Mooney viscosity of which is between 55 MU and 75 MU.

7. (canceled)

8. (canceled)

9. (canceled)

10. (canceled)

11. (canceled)

12. (canceled)

13. (canceled)

14. (canceled)

15. (original) A tire according to Claim 4, having a tread and in which the carcass reinforcing ply forms an upturn about a bead wire, characterized in that the second layer C is formed:

- * of a first band C_1 of rubber mix, extending from a point T of the bead wire radially closest to the axis of rotation, to a point of intersection S between the average axis of the meridian profile of the carcass ply and the line perpendicular to said profile lowered by the end of the upturn of the ply, the zone TS being referred to as the "bead zone",
- * of a second band C_2 of rubber mix, extending from said point T to a point R representing the end of the upturn of the carcass ply, the zone TR being referred to as the "upturn zone",
- * of a third band C_3 of rubber mix, between the point S and a point of intersection V of the average axis of the meridian profile of the carcass ply with a straight line parallel to the equatorial plane and distant from said plane by an amount which may be between 30% and 45% of the axial width of the tread, the zone SV being referred to as the "sidewall and shoulder zone",
- * of a fourth band C_4 of rubber mix, between the point V and the equatorial plane XX', forming what is called the "crown zone", the bands C_2 and C_3 being formed of the same mix, the elasticity modulus of which is between 3.5 MPa and 5 MPa and the Mooney viscosity of which is between 55 MU and 75 MU, whereas the band C_1 is formed of a mix, the elasticity modulus of which is between 10 MPa and 15 MPa and the

Mooney viscosity of which is between 60 MU and 90 MU, and that the band C_4 is formed of a mix, the elasticity modulus of which is between 6 MPa and 12 MPa and the Mooney viscosity of which is between 60 MU and 90 MU.

16. (canceled)

17. (canceled)

18. (original) A tire according to Claim 4, including a tread and in which the carcass reinforcing a ply forms an upturn about a bead wire, characterized in that the second layer C is formed:

- * of a first band C'_1 of rubber mix, extending from the point U of the upturn of the carcass ply, located substantially at mid-height of said upturn, to a point of intersection S between the center axis of the meridian profile of the carcass ply and a line perpendicular to said profile lowered by the end of the upturn of the ply,

- * of a second band C'_2 of rubber mix, extending from said point U to a point R representing the end of the upturn of the carcass ply,

- * of a third band C_3 of rubber mix, between the point S and a point of intersection V of the center axis of the meridian profile of the carcass ply with a straight line parallel to the equatorial plane and distant from said plane by an amount which may be between 30% and 45% of the axial width of the tread, the zone SV being referred to as the "sidewall and shoulder zone",

- * of a fourth band C_4 of rubber mix, between the point V and the equatorial plane XX' , forming what is called the "crown zone", the bands C'_2 and C'_3 being formed of the same mix, the elasticity modulus of which is between 3.5 MPa and 5 MPa and the Mooney viscosity of which is between 55 MU and 75

MU, whereas the band C'₁ is formed of a mix, the elasticity modulus of which is between 10 MPa and 15 MPa and the Mooney viscosity of which is between 60 MU and 90 MU, and that the band C'₄ is formed of a mix, the elasticity modulus of which is between 6 MPa and 12 MPa and the Mooney viscosity of which is between 60 MU and 90 MU.

19. (canceled)

20. (canceled)

21. (canceled)

22. (canceled)

23. (canceled)

24. (canceled)

25. (canceled)

26. (canceled)

27. (canceled)

28. (canceled)

29. (canceled)

30. (currently amended) A tire having a tread layer and at least one carcass reinforcing ply formed of reinforcement elements sandwiched between first and second calendering layers, wherein the reinforcement elements are individually coated in a rubber coating mix and are arranged parallel to each other, the first rubber calendering layer being of constant composition and properties, the composition and properties of the second calendering layer being varied according to the meridian position on the ply within the tire, wherein the second rubber calendering layer is in non-contacting, spaced relationship to the tread layer, wherein the carcass reinforcing ply has a main part and an upturned part, each part having an inner and outer face, and in which, in the main part on its axially outer face and the upturned part on its axially inner face, the carcass reinforcing ply is calendered with the first layer of constant composition and properties, whereas the opposite faces are covered with the second calendering layer of composition and properties which are variable according to the meridian length of the ply within the tire.

31. (currently amended) A process of manufacturing a tire comprising the steps of:

A) building on a drum a non-vulcanized tread layer and at least one reinforcing ply formed of reinforcing elements sandwiched between first and second non-vulcanized rubber calendering layers, wherein the reinforcing elements are individually coated in a rubber coating mix and are arranged parallel to one another, the composition and properties of the first calendering layer being constant, and the composition and properties of the second calendering layer being varied according to the meridian position on the ply within the tire, wherein the carcass reinforcing ply has a main part and an upturned part, each part having an inner and outer face, and in which, in the main part on its axially outer face and the upturned part on its axially inner face, the carcass reinforcing ply is calendered with the first layer of constant composition and properties, whereas the opposite faces are covered with the second calendering layer of composition and properties which are variable according to the meridian length of the ply within the tire; and

B) vulcanizing the tread layer and the first and second calendering layers, with the second calendering layer positioned in non-contacting, spaced apart relationship to the tread layer.

32. (canceled)

33. (canceled)

34. (canceled)

35. (canceled)

36. (canceled)

37. (canceled)

38. (canceled)